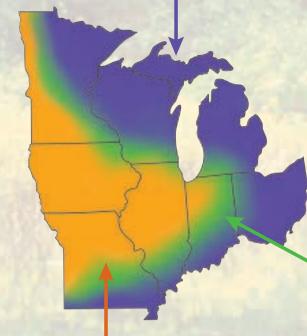
# MIDWESTERN EPHEMERAL WETLANDS

# A Vanishing Habitat



Forest



Prairie/Grassland

Ephemeral Wetlands may also be referred to as ephemeral ponds, seasonal ponds, temporary ponds or vernal pools.

Ephemeral Wetlands are depressional wetlands that temporarily hold water in the spring and early summer or after heavy rains. Periodically, these wetlands dry up, often in mid to late summer. They are isolated without a permanent inlet or outlet, but may overflow in times of high water. Ephemeral Wetlands are free of fish, which allows for the successful breeding of certain amphibians and invertebrates.



Savannah/Open Woodland

#### INSIDE

- The treasured wildlife that depend on Ephemeral Wetlands.
- Threats facing Ephemeral Wetlands.
- · How you can help.



Snow melt and spring rains fill Ephemeral Wetlands, providing preeding habitat for many amphibians and aquatic inverte brates. The developing larvae provide an important food source for migrating birds.







up to a thousand eggs in the size of a tennis ball. The eggs are attached to small twigs and branchface of the water



grow, avoid predators and begin to develop into frogs before the wetland dries up (Tyning, 1990).



will spend the rest of the year in the surrounding uplands or woodlands.

Summer



By mid-summer the

wetland begins to dry

out and the surrounding

upland habitat becomes

critical for the newly

emerging amphibians.





Many amphibians over-winter in the surrounding upland habitat during the







Fall

By fall there are very few traces of the once productive wetland. This dry phase eliminates fish and completes the life cycle for invertebrates like Fairy Shrimp whose eggs require a dry period to hatch in the spring.

Although a wetland itself may not be altered, without the surrounding upland habitat the wetland will not continue to be productive and species such as reptiles and amphibians will eventually be lost. Many creatures that depend on Ephemeral Wetlands for some part of their life cycle need the surrounding habitat just as much. Frogs, toads and salamanders breed in the wetland but generally feed and spend most of the year in the upland. Turtles will feed in the wetland but require uplands for nesting.



Amphibians and reptiles that use Ephemeral Wetlands, such as the one circled in blue above, need intact upland habitat. Roads, cars, houses and buildings create barriers and hazards to migration for wildlife and directly impact important habitat. These wetlands need to remain linked by continuous upland habitat to other wetlands and wildlife populations.



Upland habitat usage for a typical amphibian is represented by the green circle in the photograph above. The population of spotted salamanders breeding in the wetland (circled in blue) also utilizes the surrounding upland up to 534 feet from the wetland edge (Semlitsch, 1998). This habitat is essential for feeding and over-wintering. Some species such as Blanding's turtles and leopard frogs may travel up to a mile or more away from the waterbody.

## **EPHEMERAL WETLANDS ARE:**

difficult to identify when they dry out.

• threatened by invasive plant species.

not well understood.

- as small as six to twelve feet across.
- usually isolated from permanent waterbodies.
- linked to the surrounding upland habitat.
- critical habitat for many wildlife species.
- important to migrating birds.
- important for flood control and water quality. often converted to other uses such as detention ponds, fish ponds, agriculture, or dump sites. not well protected under current regulations
  - being lost across the Midwest.

#### **CONVERSIONS:**

• Many of our small Ephemeral Wetlands have been drained and filled to facilitate agriculture, building new subdivisions or other development.

> This not only eliminates habitat, but also increases the risk of local flooding.

• Others have been excavated to construct stormwater detention ponds.

During rain storms pollutants are washed into these ponds.

Still others have been converted to permanent ponds for raising fish and other forms of aquaculture.

> Permanent bodies of water tend to support fish, which are known to significantly reduce successful breeding of amphibians and aquatic invertebrates.

#### **PROTECTION ISSUES:**

Ephemeral Wetlands are hard to define, identify and protect because they tend to be small, isolated and at certain times of the year do not hold water. These wetlands tend to be highly productive. They warm quickly in spring and produce abundant quantities of food for developing amphibians, reptiles and migrating birds, especially waterfowl. Even small sites, much less than an acre, can produce hundreds of frogs, toads and salamanders. They also provide critical links to other wetlands and wildlife populations. Establishing appropriate legal protection for resources of such immense ecological value is difficult, and the level of protection currently given to Ephemeral Wetlands varies from state to state.

PRAIRIE/GRASSLAND Pintail Duck (left), Ribbon Snake (middle), Eastern Tiger Salamander (right)

SAVANNAH/OPEN WOODLAND Great Egret (left), Devil Crayfish (middle), Cope's Gray Treefrog (right)



Wood Ducks (left), Spotted Sal























**Leopard Frog** 



Ephemeral Wetlands

So, Who Cares? YOU SHOULD!

This community is depending on you for protection.



Planorbid Snail





**Gray Treefrog Tadpole** 



## **EPHEMERAL WETLAND CONSERVATION**

## Things you can do to protect and preserve Ephemeral Wetlands:

- Support the protection of these wetlands and their surrounding habitat.
- Visit Ephemeral Wetlands in your area experience their uniqueness.
- Volunteer for local restoration efforts contact local conservation organizations.
- Raise awareness in your local community to promote appropriate land use planning that will protect Ephemeral Wetlands and their upland habitat.
- Consider long-term protection options for wetlands on your private property such as conservation easements — contact your local land trust.
- Start a register of Ephemeral Wetlands in your area. (For an example see www.vernalpool.org)
- Participate in local amphibian monitoring programs like frog calling surveys and amphibian and reptile atlas projects coordinated by local conservation organizations.
- Join local conservation organizations involved in wetland protection.
- Visit USEPA Region 5 website at: www.epa.gov/R5water/ephemeralwetlands or the Center for Reptile and Amphibian Conservation and Management website: http://herps.ipfw.edu/wetlands/ephemeral/ for additional information on Ephemeral Wetlands and to obtain more copies of this brochure.

For information on wetland regulations contact your state natural resource agency, county soil & water conservation district, or the U.S. Army Corps of Engineers. For general wetlands information visit the USEPA website at www.epa.gov/owow/wetlands or call the Wetlands Hotline 1-800-832-7828 Sponsored by:





























The Conservation Foundation www.theconservationfoundation.org



Place local contact information here.

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